receiving user input to the graphical user interface specifying a sequence of operations, wherein the specified sequence of operations includes at least one motion control operation and at least one machine vision operation; and

storing information representing the specified sequence of operations in a data structure, wherein the specified sequence of operations comprises the prototype.

46. (New) The method of claim 45, further comprising:

accessing the information representing the sequence of operations to determine program instructions corresponding to operations in the sequence; and

executing the program instructions.

47. (New) The method of claim 45,

wherein said receiving user input to the graphical user interface specifying the sequence of operations does not include receiving user input specifying programming language code to implement the sequence of operations.

48. (New) The method of claim 45,

wherein the prototype is operable to perform one or more of:

control motion of a device;

acquire images; and

analyze the acquired images.

49. (New) The method of claim 45,

wherein the prototype is operable to:

control motion of a device;

acquire images; and

analyze the acquired images.

50. (New) The method of claim 45,

wherein the prototype is operable to:

control a motion control device to move an object; and

control an image acquisition device to acquire one or more images of the object.

51. (New) The method of claim 45, further comprising:

executing the sequence of operations;

wherein said executing the sequence of operations comprises performing each operation in the sequence.

52. (New) The method of claim 45, further comprising:

programmatically generating a graphical program operable to perform the specified sequence of operations; and

executing the graphical program to perform the specified sequence of operations.

A1 cont

53. (New) A computer-implemented method for creating a prototype that includes machine vision and data acquisition (DAQ) functionality, the method comprising:

displaying a graphical user interface (GUI) that provides GUI access to a set of operations, wherein the set of operations includes one or more machine vision operations and one or more DAQ operations;

receiving user input to the graphical user interface specifying a sequence of operations, wherein the specified sequence of operations includes at least one machine vision operation and at least one DAQ operation; and

storing information representing the specified sequence of operations in a data structure, wherein the specified sequence of operations comprises the prototype.

54. (New) The method of claim 53, further comprising:

accessing the information representing the sequence of operations to determine program instructions corresponding to operations in the sequence; and

executing the program instructions.

55. (New) The method of claim 53,

wherein said receiving user input to the graphical user interface specifying the sequence of operations does not include receiving user input specifying programming language code to implement the sequence of operations.

56. (New) The method of claim 53,

wherein the prototype is operable to perform one or more of:

acquire images;

analyze the acquired images; and

acquire measurement data.

57. (New) The method of claim 53,

wherein the prototype is operable to:

acquire images;

analyze the acquired images; and

acquire measurement data.

58. (New) The method of claim 53,

wherein the prototype is operable to:

control an image acquisition device to acquire one or more images of an object; and

control a data acquisition device to acquire measurement data of the object.

59. (New) The method of claim 53, further comprising:

executing the sequence of operations;

wherein said executing the sequence of operations comprises performing each operation in the sequence.

60. (New) The method of claim 53, further comprising:

programmatically generating a graphical program operable to perform the specified sequence of operations; and

executing the graphical program to perform the specified sequence of operations.

61. (New) A computer-implemented method for creating a prototype that includes motion control and data acquisition (DAQ) functionality, the method comprising:

displaying a graphical user interface (GUI) that provides GUI access to a set of operations, wherein the set of operations includes one or more motion control operations and one or more DAQ operations;

receiving user input to the graphical user interface specifying a sequence of operations, wherein the specified sequence of operations includes at least one motion control operation and at least one DAQ operation; and

storing information representing the specified sequence of operations in a data structure, wherein the specified sequence of operations comprises the prototype.

62. (New) The method of claim 61, further comprising:

accessing the information representing the sequence of operations to determine program instructions corresponding to operations in the sequence; and

executing the program instructions.

63. (New) The method of claim 61,

wherein said receiving user input to the graphical user interface specifying the sequence of operations does not include receiving user input specifying programming language code to implement the sequence of operations.

64. (New) The method of claim 61,

wherein the prototype is operable to perform one or more of:

control motion of a device; and

acquire measurement data.

65. (New) The method of claim 61,

wherein the prototype is operable to:

control motion of a device; and

acquire measurement data.

66. (New) The method of claim 61,

wherein the prototype is operable to:

control a motion control device to move an object; and

control a data acquisition device to acquire measurement data of the object.

A1 Cncld.

67. (New) The method of claim 61, further comprising:

executing the sequence of operations;

wherein said executing the sequence of operations comprises performing each operation in the sequence.

68. (New) The method of claim 61, further comprising:

programmatically generating a graphical program operable to perform the specified sequence of operations; and

executing the graphical program to perform the specified sequence of operations.--